

REMARKS

Claims 1-26 are pending.

Claims 1-26 are rejected.

Claims 1-26 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,377,866 Iwakiri, et al., (“Iwakiri”).

Applicant requests reconsideration and allowance of claims 1-26 in light of the following remarks.

Claim Rejections – 35 USC § 102

Claims 1-26 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,377,866 Iwakiri, et al., (“Iwakiri”). The applicant respectfully traverses the rejections.

As presented in the Description of the Related Art on page 2 of the application, the conventional method for detecting defective markings includes using a camera to take a picture of a the product, after which image characteristics (or features) from each character region are extracted to create extracted image data for the test product. The extracted image data is then compared with a reference pattern to determine whether the marking is good or defective. And, in accordance with this conventional testing method, since image features of the characters on the product, such as shape or darkness, are simply compared to a stored reference pattern, the results may not be exact. For example, differences in brightness or position of characters printed on the products in the same lot may adversely affect the test result. Also, dust or other contaminants on the product surface may produce erroneous test results. The conventional method may also have trouble discriminating between similar characters, such as between numeric characters six (“6”) and eight (“8”), or between the alphabetic character “O” and the numeric character zero (“0”).

As stated in the Summary of the Invention on page 2 of the application, one object of the application “is to provide a method for detecting defective markings on semiconductor products wherein marking characters are read *and recognized as characters rather than images*, to thereby increase the accuracy and reliability of the detecting method and to improve the defective marking detection rate.”

With respect to independent claim 1, the method claimed includes “extracting one or more features of actual character markings from the semiconductor product” and “recognizing *the actual character markings as characters*.” Dependent claims 7 and 8 further claim using a “Charge-Couple Device (CCD) camera or a scanner to obtain an image

of the character markings” and “using an Optical Character Recognition (OCR) technique” for recognizing the actual character markings as characters and not just as images.

Independent method claims 9, 15, and 25 all include an element or elements similar to that of independent method claim 1 in that character image is recognized as an actual character or set of characters.

Independent apparatus claim 18 includes “an Optical Character Recognition (OCR) unit configured to recognize the character image as an actual character set.”

The Examiner cites Iwakiri as describing each and every element claim 1-26. However, the detection method and apparatus described in Iwakiri is merely the method and apparatus of the conventional art disclosed in the application as described above.

The Examiner first cites to the Abstract of Iwakiri, but the Abstract only describes a camera that reads an applied mark and a comparator that compares the read information with an error being determined by an information processing system. The Examiner further cites column 3, lines 1-13, where an identification mark is read by the reading camera 31 and projected on the screen 3a “while the read information is sent to the information processing device 1.” And, the Examiner cites the flowchart in Fig. 2 which illustrates a process including reading the engraved mark by the reading device and comparing the read information by the information processing device to determine if the compared result is within a predetermined allowance.

None of the cited disclosures describes recognizing the identification marks as actual characters. The description in Iwakiri lacks any detailed information about how an image of an identification mark is analyzed or processed. Therefore, the process and apparatus described in Iwakiri does not teach or disclose any more than what the conventional method teaches or discloses in the present application as explained above.

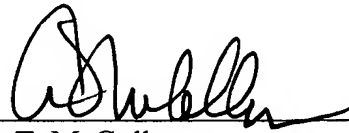
Consequently, Iwakiri fails to anticipate claims 1-26 because Iwakiri fails to disclose each and every element of these claims. The claims are thus believed to be allowable and the applicant respectfully requests allowance of these claims.

For the foregoing reasons, reconsideration and allowance of claims 1-26 of the application as amended is solicited. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

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Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'A. T. McCollom', written over a horizontal line.

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